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## REMARKS

The Office Action dated April 1, 2005 has been received and carefully considered. In this response, claims 1, 3, 4, 7, 10, 12 and 16-18 have been amended to clarify the claimed subject matter and to correct various informalities. Entry thereof and reconsideration of the outstanding rejections in the present application is respectfully requested based on the following remarks.

### Rejection of Claims 1-18

At page 2 of the Office Action, claims 1-18 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Parker (U.S. Patent No. 5,528,704). This rejection is respectfully traversed.

Claim 1, from which claims 2-6 depend, has been amended to recite the features of providing a control word comprising a first variable indicating a number of input pixels in a scaling cycle, a second variable indicating a number of output pixels in a scaling cycle, and a third variable indicating a number of right shifts which, when applied to the second variable, indicates a number of phases used in the scaling cycle. The Office Action does not assert that Parker discloses or suggests the features providing a control word that comprises a third variable indicating a number of right shifts which, when applied to a second variable indicating a number of output pixels in a scaling cycle, indicates a number of phases used in the scaling cycle as recited by claim 1. Moreover, the Applicant respectfully submits that Parker fails to disclose or suggest these features. In fact, Parker fails to provide any disclosure related to bit shifting in any manner. Accordingly, the Office Action fails to establish that Parker discloses or suggests each and every feature of claim 1, as well as each and every feature of claims 2-6 at least by virtue of their dependency from claim 1. Moreover, claims 2-6 recite additional features neither disclosed nor suggested by Parker.

To illustrate, claim 2 presently recites the additional features of determining a number of phases used in the scaling cycle by right shifting the second variable by the number of right shifts indicated by the third variable to obtain a value less than or equal to an available number of

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phases. Although the Office Action acknowledges that Parker is silent on these features, the Office Action erroneously concludes that

Parker discloses possible phases and the number of phases an input-output grid overlay pattern has depends on the tile sizes determined for the input and output image resolution (column 8). Therefore, Parker at least suggests the claim limitation of 'determining the third variable by right shifting the second variable to obtain a value less than or equal to an available number of phases' because the third variable may [be] equal to the number of phases.

*Office Action*, p. 3.

As discussed above, Parker does not disclose bit shifting in any manner. As acknowledged by the Office Action, Parker is silent as to a control word comprising the second and third variables. Accordingly, even if it is assumed, *arguendo*, Parker discloses possible phases and the number of phases an input-output overlay pattern has depends on the tile sizes, such disclosure would not lead one of ordinary skill in the art to arrive at the features of providing a control word comprising a second variable that indicates a number of output pixels in a scaling cycle and a third variable that indicates a number of right shifts which, when applied to the second variable, indicates a number of phases used in the scaling cycle as recited by claim 1, from which claim 2 depends. Furthermore, such disclosure would not lead one of ordinary skill in the art to arrive at the features of determining the number of phases used in the scaling cycle by right shifting the second variable by the number of right shifts indicated by the third variable to obtain a value less than or equal to an available number of phases as recited by claim 2.

Claim 7, from which claims 8 and 9 depend, recites the features of a control word including a first variable indicating a number of input pixels in a scaling cycle and at least two of a second variable, a third variable and a fourth variable, wherein the second variable indicates a number of output pixels in the scaling cycle, the third variable indicates a number of scaling phases used in the scaling cycle, and the fourth variable indicates a number of right shifts which, when applied to the second variable, indicates a number of phases used in the scaling cycle. Claim 7 further recites the features of a plurality of coefficient sets, one set for each used scaling phase. The Office Action asserts that the passage of Parker at column 8 discloses the features of a plurality of coefficient sets, one set for each used scaling phase. Contrary to the assertions of the Office Action, the relied-upon passage of Parker provides no disclosure related to a

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coefficient set, much less a plurality of coefficient sets, one set for each used scaling phase as recited by claim 7. Accordingly, it is respectfully submitted that the Office Action fails to establish that Parker discloses or suggests each and every feature recited by claim 7, as well as each and every feature recited by claims 8 and 9 at least by virtue of their dependency from claim 7. Moreover, claims 8 and 9 recite additional features neither disclosed nor suggested by Parker.

Claim 10, from which claims 11-15 depend, recites the features of incrementing a current phase location within a scaling cycle by a first variable to obtain a first adjusted scaling cycle and decrementing, in response to the first adjusted value being greater than a second variable, the first adjusted value by one or more times the second variable indicative of a number of output pixels in the scaling cycle to obtain a second adjusted value less than the second variable. Claim 10 further recites the features of determining an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount. Independent claims 16-18 recite similar features. The Examiner acknowledges "Parker is silent to 'incrementing a current phase location to obtain a first adjusted value' and 'decrementing the first adjusted value to obtain a second adjusted value' and 'determining an index value to access a coefficient set'." *Office Action*, p. 6. The Applicant notes that the features identified by the Examiner for which Parker provides no disclosure represent substantially all of the recited features of claims 10 and 16-18. Nevertheless, the Examiner asserts that "Parker discloses obtaining the phases and registration values and the associated coefficient sets for determining the output pixels" and, according to the Examiner's reasoning, "therefore Parker teaches obtaining the coefficient set based on the phase value and therefore Parker at least suggests determining an index value corresponding to a coefficient set based on an adjusted value obtained by incrementing a phase location *and subsequently decrementing the adjusted value.*" *Id.* (emphasis added). The Applicant respectfully disagrees and submits that the Examiner has mischaracterized the recited features of claims 10 and 16-18.

As a first issue, Parker provides no disclosure or suggestion for incrementing a current phase location within a scaling cycle by a first variable to obtain a first adjusted value, where the first variable is indicative of a number of input pixels in the scaling cycle, as recited by claims 10 and 16-18. Moreover, the Office Action does not address how Parker discloses or suggests these

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claimed features. As a second issue, Parker provides no disclosure or suggestion for decrementing, in response to the first adjusted value being greater than a second variable, the first adjusted value by one or more times a second variable indicative of a number of output pixels in the scaling cycle to obtain a second adjusted value less than the second variable as recited by claims 10 and 16-18. Moreover, the Office Action does not address how Parker discloses or suggests these claimed features. As a third issue, Parker provides no disclosure or suggestion for determining an index value to access a coefficient set by right shifting the second adjusted value a predetermined amount as recited by claims 10 and 16-18. As noted above, Parker provides no disclosure or suggesting for obtaining the second adjusted value and therefore fails to disclose or suggest determining the index value by right shifting the second adjusted value. The Applicant therefore respectfully submits that the Office Action fails to establish that Parker discloses or suggests each and every feature recited by claims 10 and 16-18, as well as each and every feature recited by claims 11-15 at least by virtue of their dependency from claim 10. Moreover claims 11-15 recite additional features neither disclosed nor suggested by Parker.

To illustrate, claim 11 recites the additional features of accessing the coefficient set based on the index value and determining a scaled pixel value based upon the coefficient set. The Office Action relies on the passage of Parker at column 8 as disclosing these features. However, as discussed above, neither the relied-upon passage of Parker nor any other passage of Parker discloses accessing a coefficient set based on an index value, where the index value is determined by right shifting the second adjusted value.

As another example, claim 12 recites the additional features of when the index value is within a first range, accessing the coefficient set from a mirror location, when the index value is within a second range, accessing the coefficient set from a direct location, and determining a scaled pixel value based upon the coefficient set. The Office Action asserts that Parker discloses these features but the Office Action does not point to any particular passage or figure of Parker, nor does the Office Action provide any rationale for its assertion that these features are disclosed by Parker. Contrary to the unsupported assertions of the Office Action, the Applicants respectfully submit that Parker fails to disclose or suggest a mirror location or a direct location or any type of comparison of an index value to any type of range and therefore fails to disclose or suggest the features recited by claim 12.

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As yet another example, claim 13, which depends from claim 12, recites the additional features of wherein determining the scaled pixel value further comprises reversing the coefficients when the coefficient set is accessed from a mirror location. The Office Action is completely silent as to how Parker discloses these features.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claims 1-18 is improper at this time and the withdrawal of this rejection therefore is respectfully requested.

**Conclusion**

The Applicant respectfully submits that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-1835.

Respectfully submitted,

1 August 2005  
Date



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